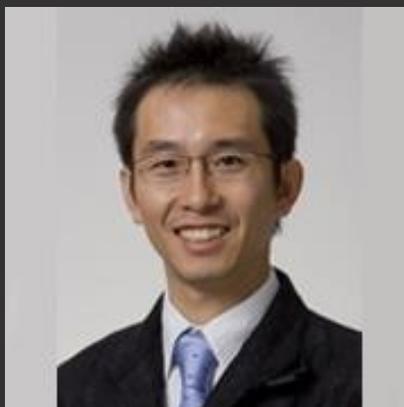


**Friday**

**Mar. 10<sup>th</sup>**

**At 10:00am**



## **Current Status of Medical Alpha Emitter Production in Japan**

### **Abstract:**

The environment surrounding to targeted radionuclide therapy (TRT) in Japan has been dramatically changed during a decade. The clinical result of  $^{223}\text{Ra}$  which shows prolongation of overall survival of metastatic HSPC cancer patients compared to placebo, changed nuclear physician's mind in Japan. By now, many physician want to use therapeutic potential radionuclides and scientists initiated the production of alpha and beta emitting radionuclides. However, to proceed the stud of TRT in Japan, the most important thing to solve is the availability of radionuclides, especially of alpha emitters. Due to the lack of longer half-lives parent nuclides such as  $^{233}\text{U}$ ,  $^{229}\text{Th}$ ,  $^{227}\text{Ac}$  to generate novel alpha emitters,  $^{211}\text{At}$ . Fortunately, there exist several cyclotrons that can accelerate 30 MeV of  $^4\text{He}$  particle to produce  $^{211}\text{At}$  using  $^{209}\text{Bi}(^4\text{He}, 2n)^{211}\text{At}$  nuclear reaction. Here, in this seminar, I would like to talk about the current status of medical alpha emitter production in Japan and how Japanese physician and scientists involved in this area are working toward the realization of TRT.

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Refreshments will be  
served at 9:45am



**TEXAS A&M  
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